Stanford's CS231n Convolutional Neural Networks for Visual Recognition (Spring 2017)

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January 24, 2020

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1.1 Motivation

Estimated that $> 85\%$ of data online is "pixel-data". So image data is like the "dark mattaer" of the web - tons of it out there that sits, un-nalyzed.

1.2 Visual cortex structure

We ourselves mostly visualize objects first as simple edge-like features. So when we see neural nets do the same thing, it seems like a deep result. We believe vision processing to be **hierarchical**.

1.3 History

Edge detection $\rightarrow$ Objects are compositions of basic shapes when viewed from a particular angle $\rightarrow$ Normalized cut as an attempt to group things into objects $\rightarrow$ decision making in vision by engineering important **features** about the object $\rightarrow$ PASCAL standardized image recognition **datasets** for competing on these tasks $\rightarrow$ ImageNetd dataset from Stanford
Point of the course *Image classification* - what is in whole image X?